

# **Modular Reconfigurable C4I Interface [MRCI] Technical Approach Summary**

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# **Overall Approach to MRCI Design Synthesis (1 of 5)**

- **Requirements Expectations Collection**
  - **Groupware Sessions**
  - **Interviews with those who have done similar work**
  - **Interviews with expected near-term MRCI users**
  - **RTI design documentation and interim version analyses**

*Visibility Mechanism(s): SRR Requirements Matrices*

*Feedforward Mechanisms: Comments to 1-800-HLA-MRCI*

*and/or [hla\\_mrci@cpqm.saic.com](mailto:hla_mrci@cpqm.saic.com)*

# Overall Approach to MRCI Design Synthesis (2 of 5)

- **Requirements Grouping**
  - Data transfer requirements
  - Information transfer requirements
  - Control (Command) transfer requirements
  - Communications infrastructure (real world) emulation requirements

*Visibility Mechanism(s): SRR Requirements Matrices*

*Feedforward Mechanisms: Comments to 1-800-HLA-MRCI*

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## **Overall Approach to MRCI Design Synthesis (3 of 5)**

- **Develop Functional Strings from C4I system(s) through MRCI and RTI to Simulation(s)**
  - **system/simulation-specific**
  - **aimed at proof-of-concept and proof-of-design demonstrations in actual exercises**

*Visibility Mechanism(s): SRR Requirements Matrices*

*PDR MRCI Design Document [Draft]*

*Feedforward Mechanisms: Comments to 1-800-HLA-MRCI*

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## **Overall Approach to MRCI Design Synthesis (4 of 5)**

- **Allocate Requirements to Functions and Processes within Functions**
  - logical groupings sharing perhaps common transaction/transfer types
  - logical groupings sharing common RTI services
  - logical groupings sharing perhaps both of the criteria above

*Visibility Mechanism(s): PDR Design Documents [Draft]*

*CDR Design Documents [semi-Final]*

*Feedforward Mechanisms: Comments to 1-800-HLA-MRCI*

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## **Overall Approach to MRCI Design Synthesis (5 of 5)**

- **Group Functions into Computer Software Configuration Items (CSCIs)**
  - forms the formal framework upon which interface control documentation is based
  - facilitates multifocussed concurrent development of MRCI functionality and rapid prototyping of functional strings for engineering evaluation and requirements refinement

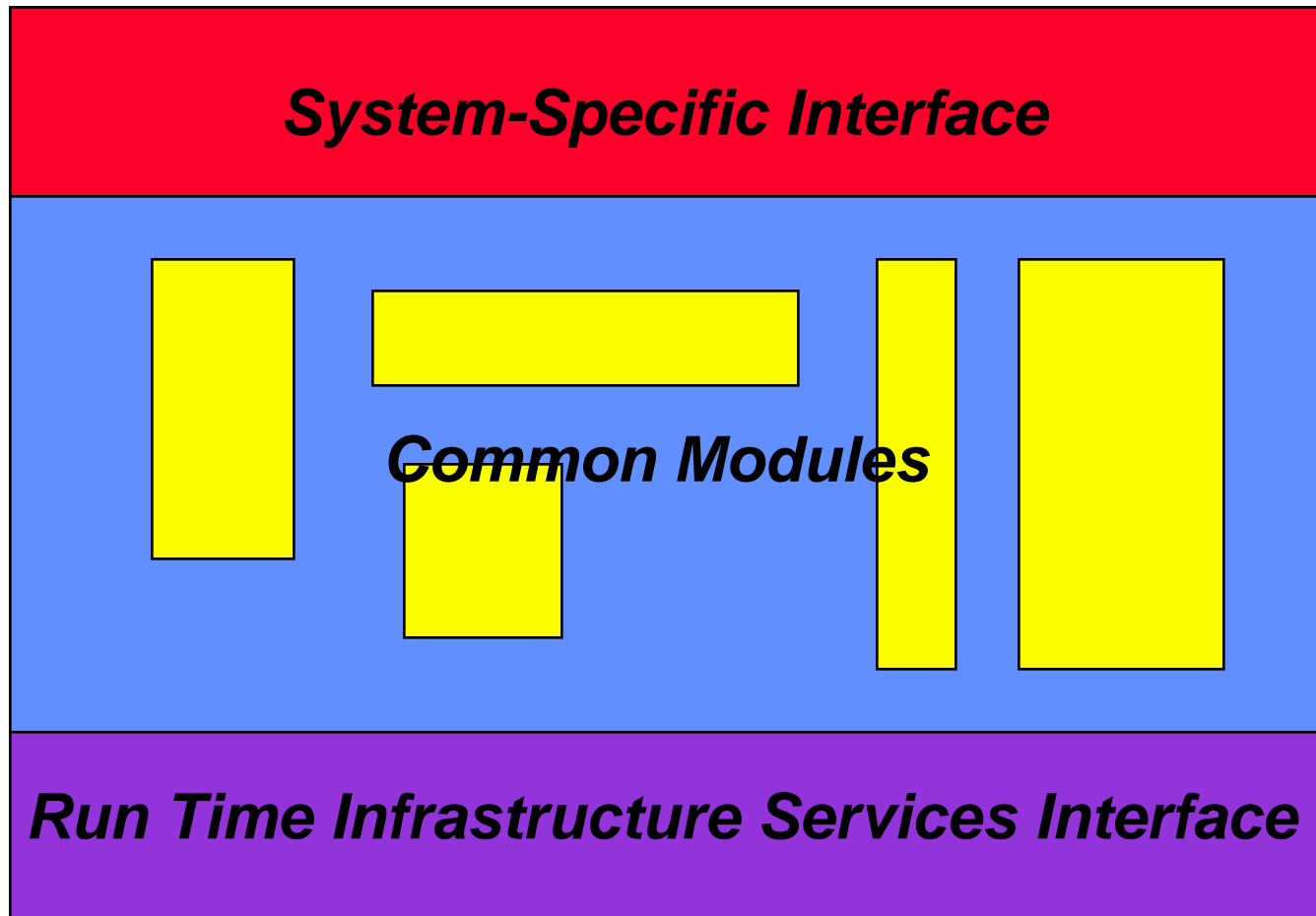
*Visibility Mechanism(s): PDR Design Documents [Draft]*

*CDR Design Documents [semi-Final]*

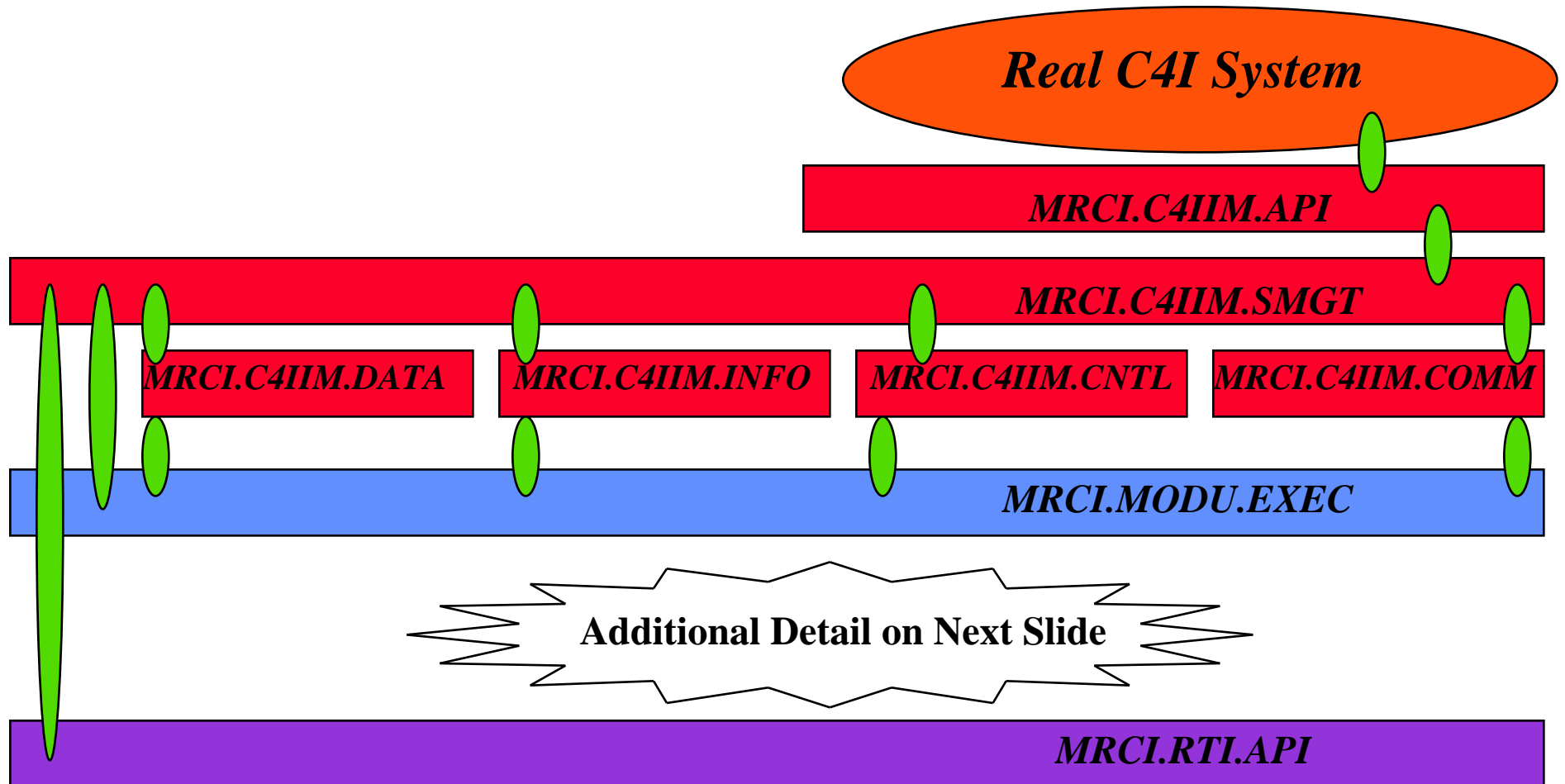
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# Strawman MRCI Design Components



# Possible Components and Connection Topology of a MRCI “C4IIM\* CSCI”



**\* C4I Interface Module = C4IIM = MRCI System-Specific Interface**



# Possible Components and Connection Topology of a MRCI “Modules CSCI”

*Connections on Previous Slide +*

